

CLAIMS

What is claimed is:

1. A method for creating an attribute bounded network of computers comprising the steps of:
 - 5 creating, on a server computer, a list of attribute bounded electronic addresses representing the indexable electronic documents on the computer network;
 - assigning an electronic address from the attribute bounded list based upon an attribute bounded request from a requesting computer by matching at
10 least one of the electronic addresses in the attribute bounded list to at least one attribute from the attribute bounded request;
 - distributing an assigned electronic address to the requesting computer;
 - and
 - processing, on the requesting computer, the distributed electronic address
15 to create a processed result based upon the distributed electronic address.
2. The method of Claim 1 further comprising:
 - transmitting the processed result to the server computer.
3. The method of Claim 1 wherein the attribute is a geographically bounded region.
4. The Method of Claim 3 wherein the geographically bounded region is
20 automatically generated based upon a physical address.
5. The method of Claim 1 wherein the attribute is a geographically bounded region based upon a computer address.

6. The method of Claim 1 wherein the attribute is a topical boundary.
7. The method of Claim 1 wherein the network is the Internet and the electronic addresses are represented as Uniform Resource Locators.
8. The method of Claim 1 wherein the step of assigning includes overlapping the
5 assignment of electronic addresses to multiple requesting computers.
9. The method of Claim 1 wherein the matching at least one of the electronic addresses in the attribute bounded list based upon at least one attribute from the attribute bounded request determines that no electronic addresses in the attribute bounded list matches any attribute from the attribute bounded request; and
10 assigning an electronic address from the attribute bounded list that does not match the attribute bounded request from the requesting computer.
10. The method of Claim 1 wherein processing step comprises:
spidering, on the requesting computer, the distributed electronic address.
11. A method for sharing an electronic document located on a computer in a peer-to-
15 peer computer network comprising the steps of:
establishing a session between a first computer and a server computer;
transferring a bounded attribute indicator from the first computer to the server computer;
transferring an electronic document address representing the electronic
20 document and an index for the electronic document, from the first computer to the server computer;
searching, by a second computer, for the electronic document, on the server computer by matching a bounded attribute indicator from the second computer;

receiving notification on the second computer, from the server of the electronic document address of the electronic document; and

initiating, from the second computer, a request to transfer the electronic document from the first computer to the second computer.

- 5 12. The method of Claim 11 wherein the bounded attribute is a geographically bounded region.
13. A method for creating a virtual community within a peer-to-peer computer network by identifying peer computer connections based upon a bounded attribute indicator comprising the steps of:
- 10 defining the bounded attribute indicator for a computer;
 identifying peer computers associated with the bounded attribute indicator;
 creating a list of identified peer computers on the computer network that are associated with the bounded attribute indicator;
- 15 using the list of identified peer computers to communicate with peer computers within the peer-to-peer network to create the virtual community.
14. The method of Claim 13 wherein the bounded attribute is a geographically bounded region.
- 20 15. The method of Claim 13 wherein the geographically bounded region is automatically defined based upon the requesting computer's physical address.
16. The method of Claim 13 wherein the geographically bounded region is automatically defined based upon a geographic location associated with an electronic document stored on the computer.

17. The method of Claim 13 wherein identifying peer computers comprises using a network request message and a network response message, wherein at least one of the network messages includes geographic location data.
18. The method of Claim 13 wherein the virtual community hosts a searchable index
5 of electronic document addresses.
19. The method of Claim 13 wherein the list of identified computers contains identifiers associated with multiple geographically bounded regions.
20. The method of Claim 13 further comprising aggregating related peer computers
10 using a peer computer bridge, the peer computer bridge being capable of summarizing information represented by the aggregated related peer computers and communicating with other peer computer bridges.
21. The method of Claim 13 wherein each computer within the peer-to-peer network provides an index of electronic documents available on the computer.